

REMARKS

§112 Rejections

Independent claims 1 and 30, and hence all of the claims 1-46, were rejected as lacking the proper antecedent basis for the term “spool”. This objection has been obviated by deleting the term “spool” and substituting the term – valve member – which is consistent with both the remaining terminology of independent claims 1 and 30 and numerous dependent claims which refer to the “valve member” as comprising or including a spool.

The phrase “a valve disposed...and the secondary fuel pump” of claim 1 was objected to as calling for a location differing from that shown in Fig. 1. This objection has been obviated by deleting this phrase in claim 1 and adding the terminology calling for a valve inlet communicating with the output of pressurized fuel and a valve outlet communicating with the secondary fuel pump which is consistent with the arrangement shown in Fig. 1 and the written description.

Dependent claim 18 has been amended to provide the proper antecedent basis by reciting the “valve member comprises” a spool which is cylindrical. Similarly, claim 41 has been amended to recite the valve member comprises a generally cylindrical spool.

With these amendments, all of the claims are believed to be clear, definite and comply with the requirements of the second paragraph of §112.

§102 Claim Rejection

Each of claims 1-3, 8, 18, 30-33, 41 and 45 was rejected only under §102(b) as being anticipated by Hoover ‘391.

Hoover

The Hoover '391 patent discloses a check valve 28 between the outlet of a positive displacement fuel pump 22 and an engine 26. Due to the pressure pulsations produced by the positive displacement fuel pump 22, when the check valve opens its head 36 and stem 50 tend to rapidly axially oscillate or move axially back and forth. To dampen this oscillation, the valve stem 50 is slidably received in a bore 40 with an orifice 52 communicating with the flow of fuel through the valve between its inlet and outlet.

Claim 1 is Novel

Claim 1 defines a fuel system having each of the following elements which are not disclosed or taught by the Hoover '391 patent:

- (1) a secondary fuel pump;
- (2) the secondary fuel pump driven by some of the output of pressurized fuel of the primary fuel pump;
- (3) a valve outlet communicating with the secondary fuel pump to supply output pressurized fuel thereto;
- (4) the inlet and outlet of the valve do not communicate with the chamber;
- (5) an orifice which communicates with the interior of the fuel tank;
- (6) a valve member which when open permits flow of pressurized fuel to the secondary pump;
- (7) the valve member when closed at least substantially restricts fuel flow to the secondary pump; and

(8) The chamber and orifice retard opening of the valve.

Since none of these elements, much less all of them, are disclosed by the Hoover '391 patent, it is submitted that amended claim 1 is not anticipated by and defines novel subject matter over this patent. For at least these reasons, claim 1 also defines non-obvious and patentable subject matter under §103.

Accordingly, reconsideration and withdrawal of the rejection of independent claim 1 and the rejected claims 2, 3, 8, and 18 dependent thereon, is requested.

Claims 30-33, 41 and 45 are Novel

As amended, independent claim 30 defines a valve for a fuel system with a fuel tank which among other things has each of the elements 3 through 8 noted above in connection with claim 1, none of which are disclosed or taught by the Hoover '391 patent.

Since none of these elements, much less all of them, are disclosed or taught by the Hoover '391 patent, amended claim 30 and each of the rejected claims 31-33, 41 and 45 dependent thereon, is not anticipated by and defines novel subject matter over the Hoover '391 patent. As amended, independent claim 30, and each of claims 31 through 46 dependent thereon, also defines patentable subject matter over the Hoover '391 patent, whether considered alone or in combination with the other cited references, for at least the foregoing reasons.

Accordingly, as amended, independent claim 30 and each of the claims 31-46 dependent thereon, is believed to define novel and patentable subject matter.

Claims 4-7, 9-17, 19-29, 34-40, 42-44 and 46

Each of claims 4-7, 9-17, 19-29, 34-40, 42-44 and 46 was rejected only under the second paragraph of §112 as being indefinite.

As amended, each of these claims is believed to be clear and definite and to define novel and patentable subject matter for at least the reasons for which they were presumably deemed to be allowable subject to correction of the §112 rejection. Accordingly, each of these claims is believed to now be in a proper form and condition for allowance.

Conclusion

As amended, all of the claims 1-46 are believed to comply with the requirements of the second paragraph of §112 and to define novel and patentable subject matter under §§102 and 103 for at least the foregoing reasons. Accordingly, reconsideration and allowance as amended of claims 1-46 is respectfully requested.

If, after considering this Response, the Examiner believes any of the claims 1-46 are not in a condition for allowance, a telephone interview with the Examiner is requested by applicant's undersigned attorney William Francis so that immediate consideration can be given to any further amendments suggested by the Examiner or otherwise needed to place all of the claims in a condition for allowance. The Examiner is respectfully requested to initiate or set a time for this interview by telephoning William Francis at (248) 689-3500 who can normally be reached Monday through Friday between 9:00 A.M. and 5:00 P.M.

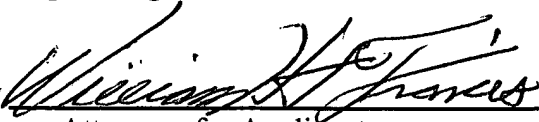
It is believed that no additional fees are due or owing to the Patent Office in view of this Response. However, if the Patent Office determines that any claim fees are due, it is requested that they be charged to our Deposit Account 50-0852.

Respectfully submitted,

Reising, Ethington, Barnes, Kisselle, P.C.

WHF:sal

By

A handwritten signature in black ink, appearing to read "William H. Francis", written over a horizontal line.

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